Protected by diamonds

Epiroc PCD drill bits – a new level in productivity and safety

Epiroc



Protected by diamonds – a golden opportunity for you and the industry

When we launched the first generation of our PCD (polycrystalline diamond) drill bits, Powerbit X, we broke new ground. With the second generation, Epiroc PCD drill bits, we are crushing it.

And not only with an improved product that makes your operations more productive, safer, and more sustainable.

It's more than just that. It's a statement. Built on our proud innovative heritage, we have developed and manufactured Epiroc PCD drill bits entirely inhouse. Why? Because we want to make these bits more accessible to the industry and frontrunners like you. You and this technology deserve it.

And, just as you wouldn't want anything to come between your drill and the rock, we see no reason why intermediaries should come between us. So, with this release, we have shortened the path for you to enjoy what you've always wanted – safe, effective drilling without interruption.

Productivity

Faster drilling, straighter holes with consistent diameters, and drilling without time-consuming bit changes all boost your productivity.

Safety

With a minimum of bit changes, next-level automation and reduced traffic in the mine, your staff's work-days are much safer.

Environment

The Epiroc PCD drill bits can cut the CO_2 equivalent contribution from drill bits by up to 90 % thanks to an improved life cycle performance, no regrinding, and fewer transports.

More than a facelift

Here's an overview of the new and updated features of Epiroc PCD drill bits:

- Optimized cutting structure for PCD with an optimized number of buttons, plus new positions, angles, and button sizes

- New PCD grade ensuring an improved cost-to-performance ratio

- Optimized flushing configurations for improved removal of cuttings and reduced heat generation

- Works seamlessly with all Epiroc rigs and machines

- Better guiding thanks to an improved guide-skirt

- New bit diameters based on less wear

Visit Epiroc PCD drill bits on epiroc.com

An evolution that's truly a revolution

Although the technology in Epiroc PCD drill bits isn't new, we've found a way to produce the bits more efficiently. This broadens access within the industry, benefiting everyone.

We dipped our toes in the water three years ago. The response was overwhelming. Since then, we have made incremental improvements to every detail. Epiroc PCD drill bits offer exceptional value for money and a quick, healthy return on investment—if you're ready to change your game.

Decades ago, we recognized PCD as an emerging technology. Back then, the timing wasn't right, and producing the drill bits were expensive. Now, change is necessary. The legal requirements are stricter. We need to drill deeper. Operator safety is a given. The industry is looking for new ways to digitize and automate its operations. Electrification, productivity, logistics, and sustainability are on everyone's minds – it feels like everything is finally converging.

Our first PCD drill bit was quite innovative, offering a longer service life and eliminating the need for regrinding. Overnight, operators cut down bit changes from hundreds to just a few.

Epiroc PCD drill bits are an upgrade of that, skillfully refining what was impressive into something even better.

It's the result of our innovative spirit and tireless work by our engineers. Epiroc, along with a few industry peers, were the first to move from steel teeth to cemented carbide bits – with Epiroc PCD drill bits, we take another revolutionary leap.

This is a new, shiny product. But one that will shine forever. And, like our earlier innovations, we are confident that someday very soon people will look at Epiroc PCD drill bits and say: Of course, we should have these. I just wish we had gotten them earlier.

How PCD works

Epiroc PCD drill bits have a diamond powder mixture applied to the buttons. These are then subjected to high pressure and temperature to create a highly durable structure.

Deeper mines. Skyrocketing productivity

Epiroc PCD drill bits improve productivity, which is a demand that becomes increasingly challenging. This is due to the combination of the bit's design and the durable, diamond-protected buttons. What's the main benefit for you? Continuous drilling through lunch breaks, shift changes, and blast ventilation cycles.

Designed for optimal performance ...
Epiroc PCD drill bits are an operator's dream. Due to less wear, we can produce smaller bit diameters, resulting in more consistent hole diameters, along with higher penetration rates. This all helps to extend the service life and improve the bit's performance. Additionally, the short distance between the hole wall and drill steel helps ensure more straighter holes. Since the diameter stays the same throughout, this means better blasting quality without compromising the rate of penetration.

... for a very long time
The longer service life is another game-changer. Forget about time-consuming in-hole bit replacements. You might even drill several holes with the same bit. Just imagine when your drill rig adapts to a new drilling pattern and keeps working without you needing to do anything. Here's a clear fact: you will save hundreds of valuable hours by switching to Epiroc PCD drill bits.

Automation, meet productivity
Mine depths increase, making it more difficult to run productive and profitable operations. With Epiroc PCD drill bits, you can overcome this challenge, as they are perfect for the automated operations needed as we go deeper.
Put simply, the long replacement interval of Epiroc PCD drill bits allows for advanced automation, from sequential to tele-remote and fully autonomous operations.

Our most common change: safer work-places

Epiroc PCD drill bits significantly improve operator safety. Not the least by minimizing unsafe bit changes in wet and slippery conditions, which contribute to more Live Work Elimination.

Staying safe by staying away
With a minimum of bit changes, Epiroc PCD drill bits reduce one of the most common causes of operator injuries. Instead of spending time outside the cabin, operators can stay inside—or even remain in the control room.

No more rush hours in the mine
Epiroc PCD drill bits greatly reduce the number of drill bits needed in the mine. This leads to less traffic, with fewer inbound trucks and fewer outbound transports of bits for disposal or regrinding. With fewer bits, there is also less handling, stocking, and moving of drill bits. This improves safety during workdays and benefits the environment as well.

Say goodbye to regrinding
Operating regrinding machines is challenging, especially in harsh environments like mines. It also produces waste. With Epiroc PCD drill bits, you won't need to regrind your bits ever again.

There are places only the bits go
Deep mines present challenges for operator safety. Ventilating deep shafts, managing increasing rock pressure, and reinforcing walls for each new meter drilled make these mines less suitable for humans. With Epiroc PCD drill bits, you can efficiently perform most of these operations remotely through automated processes that require little or no human presence.

More than a bit friendlier to your footprint

Epiroc PCD drill bits make your operations more sustainable. Their unmatched lifecycle performance, —covering everything from reduced material needs for manufacturing to fewer transports and less waste— represents a step in the right direction for the entire industry.



This life cycle only gets better

From designing Epiroc PCD drill bits to recycling worn-out bits, our goal is to maximize energy efficiency and we start off by using recycled steel and fossil-free energy during production.

A longer service life means that one Epiroc PCD drill bit replaces many standard ones, which reduces strain on Earth's resources. Additionally, the longer lifespan allows for drilling more meters with less energy use, an important factor for sustainability.

Also, since there is no regrinding, you don't use any energy for that. Epiroc PCD drill bits do what they are designed to do until they are worn out.

Put together, the Epiroc PCD drill bits can cut the CO_2 equivalent contribution from drill bits by up to 90 percent.

A double win in the race toward lower emissions

The math is simple. Epiroc PCD drill bits last longer, so you need fewer of them. This reduces transportation to and from your site. Since you don't regrind the bits, that impact is eliminated as well.

Additionally, because a long service life benefits automated operations, Epiroc PCD drill bits are ideal for replacing older rigs with modern, electric-powered ones that include digital solutions.

These changes collectively help reduce your CO2 emissions. Finally, with fewer bits and no regrinding required, there is less waste to manage. And of course, we run a recycling program to properly process your used drill bits too.

Epiroc PCD drill bits - Product portfolio

Product number	Bit size	Thread
Face drilling		
5697005451	47,5 mm	SR35
5697005450	49 mm	SR35
5697006324	99 mm	SR35
Production drilling		
5697005527	75 mm	T45
5697006362	88 mm	T51
5697005566	88 mm	ST58
5697005581	88 mm	ET55
5697006090	88 mm	ET55
5697006727	101 mm	ET66
5697006363	101 mm	ST68
5697005455	114 mm	ST68
5697004038	115 mm	DHD340



Rock drilling tool selector and configurator

To find all products related to Epiroc PCD drill bits, please visit the rock drilling tool selector.

With its easy navigation, the rock drilling tool selector lets the user find the required product, desired attributes and its product number.

The configurator allow users to match rock drilling tools with Epiroc drill rigs.



Discover the rock drilling tool selector and configurator

United in performance. Inspired by innovation.

Performance unites us, innovation inspires us, and commitment drives us to keep moving forward. Count on Epiroc to deliver the solutions you need to succeed today and the technology to lead tomorrow.
epiroc.com

Epiroc

9866 0431 01 2025-11 Fagersta, Sweden. Legal Notice © Copyright 2025. Epiroc Drilling Tools AB. Fagersta, Sweden. All product names in this publication are trademarks of Epiroc. Any unauthorized use or copying of the contents or any part thereof is prohibited. Illustrations and photos may show equipment with optional extras. No warranty is made regarding specifications or otherwise. Specifications and equipment are subject to change without notice. Consult your Epiroc Customer Center for specific information.